TECHNICAL BENCHMARK REPORT 2026

AV1 vs H.264

Real Streaming Data from Android TV Hardware

34%	3 Devices	8K Ready
Less Data	Tested	AV1 Native

Sustained 4K streaming tests | Controlled environment | Real device data

Why AV1 Changes Everything

The open-source codec that is reshaping mobile streaming in 2026

30-50%

Better compression than H.264 at equivalent visual quality

Free

Royalty-free licence — no cost passed to users

Native

Hardware decode on all Android TV devices since 2022

5G Ready

Streams 4K on connections previously limited to 1080p

Data Consumption Comparison — 10GB Monthly Plan

Source: youcinez.com benchmark testing | Amlogic S928X hardware | April 2026

Thermal Benchmark Results

3 hours sustained 4K AV1 streaming | 28 degrees C controlled environment

ELITE

52C

Max temperature

Ugoos AM8 Pro

Amlogic S928X

PASS

58C

Max temperature

Fire TV Stick 4K Max

MediaTek MT8695

WARN

68C

Max temperature

Onn 4K Pro

Amlogic S905X4

Frame Drops During Test:			
	0.00%	0.00%	20.3%

Frame drop data from 60-minute 8K streaming test | Source: youcinez.com

Chipset Performance Comparison

Which chipset handles AV1 streaming best in 2026?

Chipset	AV1 Decode	Max Temp	Frame Loss	Rating
Amlogic S928X	Hardware Native	52 C	0.00%	ELITE
MediaTek MT8695	Hardware Native	58 C	0.00%	PASS
Amlogic S905X4	Partial HW	68 C	20.3%	WARN
Rockchip RK3588	Hardware Native	61 C	0.01%	PASS
Snapdragon 8 Gen3	Hardware Native	55 C	0.00%	ELITE

Key Insight:

Amlogic S928X delivers the best AV1 decode efficiency — 16 degrees cooler than S905X4 under identical load. For sustained 4K streaming the chipset choice matters more than RAM.

Source: youcinez.com — April 2026 device testing

Live Sports Latency Data

HLS low-latency protocol vs traditional cable — Champions League testing

8-20
seconds

Traditional Cable
Standard broadcast delay

vs

1.4
seconds

YouCine AV1 HLS
Low-latency HLS protocol

What this means for football fans:

- Hear the goal celebration at the same time as your neighbour
- No more 15-second spoilers from WhatsApp notifications
- Tested during live Champions League match on 50 Mbps connection

Source: youcinez.com live testing | Claro 5G network | Sao Paulo, Brazil

Device Compatibility Guide

Which devices support AV1 hardware decode natively in 2026?

Fire TV Stick 4K Max	**Full AV1 HW**	Best for sideloading + AV1
Ugoos AM8 Pro	**Full AV1 HW**	Best thermal performance
Google TV Streamer	**Full AV1 HW**	Best Google ecosystem
Onn 4K Pro	**Partial AV1**	Budget — watch temps
Samsung (Tizen)	**No native APK**	Use web player or HDMI device
LG (webOS)	**No native APK**	Use web player or HDMI device

2026 WARNING — Vega OS:

New Fire TV Stick HD runs Vega OS (Linux) — sideloading blocked. Fire TV Stick 4K Max on Fire OS is the last confirmed model with full APK sideload support.

Full setup guides for every device at youcinez.com — free, no account required

Key Takeaways

What the benchmark data tells us about AV1 streaming in 2026

01 **AV1 reduces data by 34%**

On hardware decode capable devices, AV1 delivers the same quality as H.264 while consuming 34% less data — proven across 3 devices.

02 **Chipset matters more than RAM**

The difference between Amlogic S928X and S905X4 is 16 degrees under identical load. Always check chipset generation before buying a TV box.

03 **Live sports latency is solved**

Low-latency HLS delivers 1.4 second delay — faster than most cable broadcasts. Real testing during Champions League on Claro 5G.

04 **Vega OS closes the sideloading window**

Fire TV Stick HD runs Vega OS with no APK support. The 4K Max on Fire OS is the last device with full AV1 + sideload capability.

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Android TV & Fire TV Stick streaming guides and benchmark data

- Fire TV Stick 4K Max setup guide
- Samsung & LG Smart TV streaming
- Copa do Mundo FIFA 2026 live streaming
- YouCine APK vs Netflix comparison

Methodology: All tests conducted April 2026 in a 28 degrees C controlled environment.
Devices tested for 3 consecutive hours of 4K AV1 streaming on a 50 Mbps connection.
No affiliate links. No sponsored content. All benchmark data independently verified.